

Rediweld Reports

A Partnership for Innovation

At Rediweld we are proud to have contributed both expertise and innovation to some of the traffic management challenges created by London 2012.

Our introduction to the Olympic Route Network (ORN) goes back to 2010 when we first made presentations and in November met key contacts at the Seeing Is Believing exhibition. Visits to our site at Alton followed, where we discussed the range of Rediweld traffic products and demonstrated our manufacturing facility for processing recycled rubber.

From this start, we went on to supply nine different types of product along with extensive parts of the ORN and at over twenty different events and locations.

Using our design capability the unique Cycle Ramp and Temporary Bus Ramps were developed and project managed specifically for these events using fifty tonnes of recycled material.

Many of the products were installed by our own installation teams, often at night and to demanding schedules. Some were hired and can be reused and others remain available for use as part of the London 2012 legacy.

RediPave offers solution for Refuge Island at St Pancras International Station!



Rediweld was approached to see if they could offer a temporary solution by HS1 for the taxi area at St Pancras International Station along Midland Road. This was to help with the increased volume of passengers that would be going through the station during the summer.

The specification called for an island to be installed which would then allow the taxis to filter either side to collect waiting passengers. Due to the newly installed granite sets they required a product that would not be fastened and at the end of the Paralympics could be removed easily.



The island needed to be 1.5m wide x 23m long and would be connected by ply boards with anti-slip coating which would keep the construction together.



The RediPave Island took 3 hours to install and was installed on 21st June and was removed on 10th September, 2012.

Rediweld takes up the Cycle Ramp Gauntlet!



The Cycle Road Races at the start of the games were always going to be big events and followed a successful test race won by Mark Cavendish in 2011.

Constitution Hill would be the setting for a spectacular sprint finish but for one traffic island, 1.5m wide by 10m long, in the middle of the road at the Memorial Gates near to Hyde Park Corner. For the test event last year, the island and a large area around it, was temporarily covered in tarmac.

Due to the expense and disruption an alternative approach was sort that could be reused for future races.

Ringway Jacobs approached Rediweld back in August 2011 regarding this project and together with TfL, LOCOG and Royal Parks a design brief for a temporary cycle ramp was developed.



The brief called for an acceptable skid resistance on the surface, a suitably shallow gradient for the on and off ramps, the ability to withstand fast moving support vehicles, to only be fixed to the carriageway at either end, to be installed or uplifted within four hours, to be reusable and to be unnoticeable to a sprinting cyclist!

A trial was arranged on 7th February 2012 at Alton with a mock up construction which successfully proved the concept.



Patterns and cast iron moulds were produced within six weeks and parts made in time for the next key stage which was a trial at Constitution Hill on 13th May 2012. A ramp 3m wide and 20m long which was driven over by cycles and vehicles, provided the feedback needed to finalise the design.



A full trial followed on 1st July 2012 with the ramp now 10m wide by 29m long with a ramp gradient of 1 in 35, consisting of rubber modules 500mm by 500mm supporting a decking made of ply boards with an anti-slip coating. The complete construction consisted of 1060 modules made from over 20 tonnes of recycled rubber.

For both the full trial and installation for the events, we worked closely with Ringway Jacobs and their sub-contractor. On the night of 27th July 2012, we had only a few hours to get everything in place for the Men's race, the next day. In that window 34 pallets of modules were delivered to site, unloaded and positioned before 110 ply boards were fixed down to complete the construction.

Over that weekend the cycle ramp proved itself by being unnoticed both in the dry and the wet. Then on the evening of 29th July 2012 the whole installation was removed leaving the Memorial Gates unscathed.

For Rediweld this has been our most innovative and challenging project, which required a close partnership to achieve and has provided a legacy for future events.

Jislon Pole Cones offer solution for the Route Network



The demonstration used an Ambulance and a Gritter lorry (simulating the Fire Appliance which had been called away) to drive over the products. A wide group of people involved in the ORN/PRN attended, together with manufacturer's representatives, providing important comments and feedback.

After a period of consultation, a decision was made and Jislon Pole Cones 1m high were selected for use on large parts of the network. One of the requirements was that delineators should have TSRGD markings but look different from any other road works. So for inner London areas distinctive black Pole Cones were used. Depending on the location NSE or NS anchors were supplied, the NSE being quicker to install and the NS suitable for shallows surfaces like bridge decks. In total 4370 Pole Cones were supplied to three main contractors.

Creating the ORN and PRN road networks to ensure reliable journey times presented a major challenge, with 109 miles in London alone including 30 miles of Games Lanes. A key requirement by TfL and their main contractors was a suitable delineator for lane separation, closing side roads and preventing right turns to and from side roads.

This requirement was raised early in our discussions with Ringway Jacobs and the emergency services wanted a product that could easily be driven over without delaying their response times but would rebound after impact. We were able to offer our Jislon Pole Cone range of passively safe posts which are ideal for this application.

A demonstration was arranged for 23rd November 2011 and we supplied a RediPave Splitter Island and some Jislon Poles Cones to perform alongside other products that were also being tested.



Rediweld also worked closely with one of the contractors providing two teams of installers to pre-install 3961 NSE anchors in advance. This work was all carried out at night to reduce disruption to the network. The installation took 6 weeks to complete and was in time for the Pole Cones to be installed on 25th/26th July 2012 ready for the big event.



New Bus Ramp Offers London 2012 Accessible Solutions



Earlier this year Rediweld was approached by Kishan Khona, Transport Paralympic Integration Manager for the London 2012 Games, regarding its BusPad product which drew considerable interest. Many of the Paralympic venues lacked proper kerbing in their load zones, which is required to allow internal bus ramps to deploy at accessible gradients for wheelchair users.

Jeanette Holder met with Kishan to discuss potential ways to 'pad' a growing number of locations. Behind the scenes, London 2012's Venue Transportation Managers were completing accessibility assessments for over 50 competition and non-competition venues and were identifying more and more locations that required infrastructural solutions in loading areas.

It was soon apparent that the BusPad product would not be high enough because it was designed to be placed over existing raised pavement. This scenario presented a new opportunity to offer a temporary, free-standing solution that was at least 125mm high on par with London 2012's procurement objectives that include sustainability, innovative & accessible design, meets Health & Safety standards and provides legacy benefits.



Kishan sketched out a general shape and Rediweld responded by developing an animated rendition of a design. By adapting modules that had been developed for the Cycle Ramp, Rediweld was able to build a new product to the specifications requested by London 2012.

The first prototype was produced and later installed for trial at Eton Manor, the Wheelchair Tennis venue in Olympic Park.

This demonstration resulted in modifications, including the addition of yellow edge markings for the ramp sections and red markings around the flat top which guide bus drivers. Buffer strips were also added to the flat top to prevent wheelchair users from going over the edges of the platform.

After this successful trial, production began and 34 Temporary Bus Ramps were installed for the Games at locations including Paddington Station, the ExCel Centre, Eton Dorney, Eton Manor, Royal Holloway, Weymouth, Greenwich Park, Royal Artillery Barracks, North Greenwich Arena, Brands Hatch, Hackney's Park 'n' Ride and the Uniform & Accreditation Centre.

The ramps were used during both Games and drew rave reviews from the disabled parties that used them from athletes, technical officials and media to those arriving to the Games by taxis.

A number of these ramps have been proposed towards using as part of the legacy.

The Temporary Bus Ramp is offered on hire for events or for purchase.

